

Notice of Allowability

Application No.

10/785,399

Examiner

Walter F. Briney III

Applicant(s)

TRUMP ET AL.

Art Unit

2646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 19 January 2006.
2. ☒ The allowed claim(s) is/are 11-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The claims are amended as follows to correct several minor typographical errors:

11. (Currently Amended) A method of enhancing audibility of a far-end signal received at a near-end user in a telephone system by applying a gain to said far-end speech signal, the method comprising:

determining whether a ratio between an estimated near end speech signal level and an estimated near-end background noise level exceeds a first threshold; and

increasing said gain if said ratio exceeds said first threshold and at ~~[[lease]]~~ least one of said estimated near-end speech signal level and said estimated near-end background noise level exceeds a second and third threshold, respectively.

17. (Currently Amended) The apparatus of claim 16, further comprising:

means for determining a fourth threshold from an estimated maximum far-end speech signal level,

means for limiting said gain to values below said fourth threshold.

19. (Currently Amended) The apparatus of claim 16, further comprising:

means for determining a fourth threshold from an estimated maximum far-end speech signal level;

means for determining a fifth threshold $[[fro]]$ for at least one estimated echo return loss;

means for limiting said gain to values below the smallest of said fourth and fifth thresholds.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

1. Claims 11-20 are allowed.

Claim 11 is limited to "a method of enhancing audibility of a far-end signal received at a near-end user in a telephone system by applying a gain to said far-end speech signal". Yamashita (US Patent 5,615,256) discloses a device and method for automatically controlling sound volume in a communication apparatus. See Abstract. The near-end device of Yamashita includes a receiver 102 for receiving far-end signals and passing said signals to a speaker 105 by way of a variable-gain amplifier 104. See column 3, line 40, through column 4, line 62. In operation the near-end device executes one of the signal processes illustrated in figures 2, 4, 5 and 7. Common to all processes is the speech discrimination function 203 that "determines whether a ratio between an estimated near-end speech signal level and an estimated near-end background noise level exceeds a first threshold", where signal S_{dat} corresponds to the "estimated near-end speech signal level", S_{av} corresponds to the "estimated near-end

Art Unit: 2646

background noise level" and the "threshold" is unity. Yamashita also discloses comparing either S_{dat} to a second threshold or S_L to a second threshold. See figures 7 and 5, respectively. However, it is noted that the gain S_{gc} is only increased during periods when S_{dat} is less than S_{av} . See figures 3D and 3E. This operation is effected by the presence of AND/NAND gate 306. Thus, claim 11 is allowable over the cited prior art.

Claims 12-15 are limited in part to "the method of claim 11", and thus are allowable over the cited prior art for at least the same reasons.

Claim 16 is limited to "an apparatus for enhancing audibility of a far-end speech signal received at a near-end user in a telephone system by applying a gain to said far-end speech signal". The apparatus claimed herein comprises means to perform each method step of claim 11. Thus, claim 16 is allowable over the cited prior art.

Claims 17-20 are limited in part to "the apparatus of claim 16", and thus are allowable over the cited prior art for at least the same reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F. Briney III whose telephone number is 571-272-7513. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WFB



SINH TRAN
SUPERVISORY PATENT EXAMINER